

**Technical Data Schedule for the
Private Land Mobile and Broadcast Auxiliary Land Mobile Radio Services
(Parts 90 and 74)**

Approved by OMB
3060 - xxxx
See Main Form instructions
for public burden estimate

Eligibility

1) Rule Section:

Frequency Coordinator Information (if not self-coordinated)

2) Frequency Coordination Number	3) Name of Frequency Coordinator	4) Voice Telephone Number

5) Associated Call Signs (Attach additional sheets if required)

Control Point(s) (Other than at the transmitter)

6) Action A/M/D	7) Control Point Number	8) Location Street Address, City or Town, County, State	9) Telephone Number

10) Broadcast Auxiliary Only

If there is an associated Parent Station, provide:	Call Sign of Parent Station	Class of Parent Station	City and State of Parent Station Principal Community
If there is no associated parent station, this applicant is a : ()			
Broadcast Network Entity	Television Cable Operator	Motion Picture Producer	Television Producer
			State of Primary Operation

Technical Information

11) Action: () A/M/D		12) Location Number:			13) Frequency (MHz)		
14) Station Class	15) No. of Units	16) No. of Paging Receivers	17) Emission Designators	18) Output Power (watts)	19) ERP (watts)	20) AAT (meters)	21) Ant. Ht. (meters)

11) Action: () A/M/D		12) Location Number:			13) Frequency (MHz)		
14) Station Class	15) No. of Units	16) No. of Paging Receivers	17) Emission Designators	18) Output Power (watts)	19) ERP (watts)	20) AAT (meters)	21) Ant. Ht. (meters)

11) Action: () A/M/D		12) Location Number:			13) Frequency (MHz)		
14) Station Class	15) No. of Units	16) No. of Paging Receivers	17) Emission Designators	18) Output Power (watts)	19) ERP (watts)	20) AAT (meters)	21) Ant. Ht. (meters)

Additional Technical Information

22) Action: () A/M/D		23) Location Number:		24) Frequency (MHz)			
25) Azimuth		26) Beamwidth (degrees)		27) Polarization		28) Gain (dBi)	

22) Action: () A/M/D		23) Location Number:		24) Frequency (MHz)			
25) Azimuth		26) Beamwidth (degrees)		27) Polarization		28) Gain (dBi)	

22) Action: () A/M/D		23) Location Number:		24) Frequency (MHz)			
25) Azimuth		26) Beamwidth (degrees)		27) Polarization		28) Gain (dBi)	

Information and Instructions

**Instructions for Technical Data Schedule for the
Fixed Microwave and Microwave Broadcast Auxiliary Services
(Parts 101 and 74)**

FCC Form 601, Schedule I, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC Form 601. FCC Form 601, Schedule I, is used to apply, or to amend a pending application, for an authorization to operate a radio station in the Fixed Microwave and Microwave Broadcast Auxiliary Services, as defined in 47 CAR, Parts 101 and 74. The FCC 601 Main Form must be filed in conjunction with this schedule.

All site and technical information, whether pertaining to a fixed location or a mobile location, is filed on Schedule I. Do not file Schedule D - Schedule for Fixed Station Locations and Antenna Structures, or Schedule E - Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations, in conjunction with Schedule I.

**Schedule I
Instructions**

•Administrative Information

Item 1 Enter 'Y' if this application is being filed as part of a system; otherwise enter 'N'.

Item 2 If the answer to Item 1 is 'Y', enter the System Registration Number (required if a System Registration Number has already been assigned by the FCC). If the answer to Item 1 is 'Y', and a System Registration Number is not provided in Item 1, a new System Registration Number will be assigned by the FCC.

Note: In order to incorporate a new paper-filed application into a previously filed existing system, the existing System Registration Number must be provided in Item 2 (call the FCC at (###) ###-#### (?) for previously-assigned System Registration Number). In order to incorporate new paper-filed applications into a new system, all the paper-filed applications for the new system must be filed together.

Item 3 Enter the type of operation code (select one only). Valid type of operation codes are:

D - Digital Electronic Message (DEM),
M - Multiple Address Stations (MAS)
F - Fixed Point to Point
T - Temporary Fixed/Mobile
18 - 18 GHz Low Power
31 - 31 GHz Systems
38 - 38 GHz Systems.

Item 4 For Multiple Address Stations (MAS) type of operations only ('M' was entered in Item 3), enter the type of MAS operation. Enter all that apply. This item classifies various Private Operational Fixed Multiple Address Station (MAS) operations.

•Control Point

Fixed Microwave and Microwave Broadcast Auxiliary Services authorize only one control point per license. Therefore, this section must be completed only when a control point is to be added or modified. If you are adding a new control point (for a new license only), complete all items in this section. If you are modifying an existing control point, in addition to Item 5, complete only the items that have changed for the control point. The control point that is currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Item 5 This item indicates what action the filer wants the FCC to take in the database for the specified control point. Enter 'A' for Add or 'M' for Modify.

Item 6 Enter the street address, city or town, county, and state of the control point. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

Item 7 Enter the telephone number where a person responsible for operation of the station or systems can be reached.

•Broadcast Auxiliary

This item applies to Microwave Broadcast Auxiliary Stations only. Complete either Item 7 or Item 8.

Item 8 If there is an associated parent station, enter the call sign of the parent station (Item 8a), the class of the parent station (Item 8b), and the city and state of the parent station principal community (Item 8c).

Item 9 If there is no associated parent station, certify that the applicant is a broadcast network entity by entering the state of primary operation (Item 9a). By signing the Main Form filed in conjunction with this schedule, the applicant certifies that the statement listed in Item 9 is true, complete, correct, and made in good faith.

•Frequency Coordinator Information

The items in this section must be completed if the station is not self-coordinated.

Item 10 Enter the frequency coordination number.

Item 11 Enter the name of the local frequency coordinator.

Item 12 Enter the telephone number (including area code) of the frequency coordinator.

Instructions for Schedule I Supplement 1 - Transmit Site Data

•Purpose

Item 1 To add a new transmit site (for new licenses only), enter 'A'. If the new transmit site you are adding is a fixed transmit site also complete Items 2 through 15. If the new transmit site you are adding is a mobile transmit site, also complete Items 2 through 4 and Items 16 through 26.

Note: Part 101 Microwave Services and Part 74 Broadcast Auxiliary Microwave Services only authorize one transmit site, fixed or mobile, per license.

To modify existing transmit site data (for existing licenses only), enter 'M'. Only complete those items that are being modified (enter the new data only).

•Station Class

Item 2 Enter the code that identifies the transmitter class. The codes are as follows:

Fixed	FXO
Temporary Fixed	FX5
Mobile	MO
Mobile & Temporary Fixed	MO5

•Site Name

Item 3 Enter the site or station name. If a new station is proposed, give it a name that relates to its location (up to 20 characters). For example, the name of a city, statistical area, town, or prominent geographical feature may be used. If necessary, abbreviate the name, without punctuation (e.g., Bald Mtn).

•Environmental Data Question

Item 4 This item is required for compliance with the National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4335. See also Part 1, Subpart I of the FCC rules (47 CAR 1.1301 - 1.1319). This item must be answered, either 'Y' or 'N'.

Enter Y if an FCC grant of the proposed facility may have a significant environmental effect, as defined in Section 1.1307 of the FCC rules and provide the required environmental assessment. Examples of facilities that may have a significant effect on the environment include:

An antenna structure located in a residential area (as defined by applicable zoning laws) that will utilize high intensity aviation obstruction lighting

A facility located in an officially designated wilderness area, wildlife preserve, or floodplain

A facility that affects a site significant in American history

A facility whose construction involves extensive changes in surface features

Facilities, operations, or transmitters that would cause human exposure to levels of radio frequency radiation in excess of the limits as detailed in §§ 1.1310 and 2.109 of the Commission's Rules.

•Transmit Location (Fixed Point)

Items 5 and 6 Enter the geographic coordinates of the location, referenced to the North American Datum of 1983 (NAD83). This information can be determined using a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington D.C. 20242 or from its office in Denver, Colorado 80225.

Note: If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the Internet at www.ngs.noaa.gov.

Enter the latitude using the format *DD-MM-SS.S*, where the degrees (*DD*) term can have a value in the range of 0 to 90, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

Item 7-10 These items identify the location by its address or, if there is no address, by a brief specific geographic description of the location, such as distance and direction from known landmarks (e.g., '5 km S of Anytown, Adams County, NY'). P.O. Box numbers or geographic coordinates are not acceptable for Item 7. For rural or unincorporated areas, enter the nearest city or town to the transmitter antenna location for Item 7. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

Item 11 If antenna structure registration is required and the owner of the structure has registered the structure with the FCC, enter the seven digit FCC Antenna Structure Registration Number (shown on the structure's registration, FCC Form 854R). If the owner of the structure has filed FCC Form 854 with the Commission to register the structure but has not yet received a registration number, enter the month and day that the application was submitted. Otherwise, enter 'N/A' (FAA notification is not required).

Note: Effective 7/1/96 the Commission requires owners to register certain structures. For more information, see our web site at <http://www.fcc.gov/wtb/antenna> or call the National Call Center at 888-225-5322.

Item 12 Respond to this item only if you indicated 'N/A' in Item 11. Enter the elevation above mean sea level (AMSL) of the ground at the antenna location. Enter this item in meters, rounded to the nearest tenth. This information can be determined using a GPS receiver, 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, D.C. 20242 or from its office in Denver, Colorado 80225. Refer to letter 'a' in the Antenna Structure Samples on Form FCC 601 Schedule I, Supplement 1.

Item 13 Respond to this item only if you indicated 'N/A' in Item 11. Enter the height above ground to the highest point of the supporting structure only. Enter this item in meters, rounded to the nearest tenth. For example, if the antenna structure consists of a building/tower combination, include any elevator shaft, flag pole, or penthouse in the overall support structure height, but not the antenna, tower, pole, or mast. If the antenna structure is a tower only, include the height of the tower but not the antenna. Refer to item 'b' in the Antenna Structure Samples on Form FCC 601 Schedule I, Supplement 1.

Item 14 Respond to this item only if you indicated 'N/A' in Item 11. Enter the overall height above ground of the entire antenna structure to the highest point, including any appurtenances. Enter this item in meters, rounded to the nearest tenth. You must include antennas, dishes, obstruction lighting, etc. Refer to item 'c' in the Antenna Structure Samples on Form FCC 601 Schedule I, Supplement 1.

Item 15 Respond to this item only if you indicated 'N/A' in Item 11. Enter the code for the type of structure on which the antenna is or will be mounted from the following valid structure types:

Code	Definition
B	Building with a side mounted antenna
BANT	Building with Antenna on Top
BMAST	Building with Mast/Antenna on Top
BPIPE	Building with Pipe/Antenna on Top
BPOLE	Building with Pole/Antenna on Top
BRIDG	Bridge
BTWR	Building with Tower/Antenna on Top
MAST	Self-Support Structure
NNTANN*	Antenna Tower Array
NTOWER**	Multiple Structures
PIPE	Any Type of Pipe
POLE	Any Type of Pole. Pole used only to mount an antenna.
RIG	Oil or Other Type of Rig
SILO	Any Type of Silo
STACK	Smoke Stack
TANK	Any Type of Tank, Water, Gas, etc.
TOWER	A Free Standing Guyed Structure Used for Communications Purposes
TREE	When Used as a Support for an Antenna
UPOLE	Utility Pole/Tower Used to Provide Service (Electric, Telephone, etc.)

* Valid Tower Arrays. Code definition: The first NN indicates the number of towers in an array. The second NN is optional and indicates the position of that tower in the array (Ex.: 3TA2 would identify the second tower in a three tower array).

** Valid Multiple Structures. Code Definition: The N indicates the number of towers in a multiple structure (Ex.: 2TOWER, 3TANK, 4TREE, 6BANT, 7BMAST).

Transmit Location (Area or Mobile)

Item 16 Enter the appropriate area of operation code using table below. Additional mobile location fields must be completed according to the area of operation code chosen. Refer to the table to determine which additional fields are required for the chosen area of operation code.

Area of Operation Codes and Required Data Values

Code	Description	Additional Schedule E Data Elements Required to Complete for Area of Operation Code					
P	KMRA* around a Centerpoint	Temporary Fixed or Mobile Radius	Latitude	Longitude	City	County	State
N	Nationwide including Hawaii Alaska & US Territories						
U	Continental US						
C	County Wide Area of Operation	County	State				
S	Statewide Area of Operation	State					
O	Other - Narrative	Item 15					
R	Box / Rectangular Area of operation	Maximum Latitude	Maximum Longitude	Latitude		Longitude	

kilometers Radius

Item 17 Complete this item for temporary fixed or mobile stations where the area of operation will be defined as a radius around a specified set of coordinates. If 'P' was entered for Item 16, enter the radius. Enter in kilometers, rounded to the nearest tenth.

Items 18 and 19 If 'P' was entered in Item 16, enter the geographic coordinates (latitude and longitude) of the location. If 'R' was entered in Item 16, enter the minimum geographic coordinates of the rectangular area.

Coordinates entered must be referenced to the North American Datum of 1983 (NAD83). This information can be determined using a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, D.C. 20242 or from its office in Denver, Colorado 80225.

Note: If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the Internet at www.ngs.noaa.gov.

Enter the latitude using the format *DD-MM-SS.S*, where the degrees (*DD*) term can have a value in the range of 0 to 90, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

Items 20 and 21 These items are to be completed for operations that are defined by a rectangular area or box coordinates. If code 'R' was entered in Item 16, enter the maximum geographic coordinates (latitude and longitude).

Coordinates entered must be referenced to the North American Datum of 1983 (NAD83). This information can be determined using a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, D.C. 20242 or from its office in Denver, Colorado 80225.

Note: If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the Internet at www.ngs.noaa.gov.

Enter the latitude using the format *DD-MM-SS.S*, where the degrees (*DD*) term can have a value in the range of 0 to 90, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

Item 22 If 'P' was entered in Item 16, enter the city or town name of the location. This item is required only if Item 12 is blank.

Item 23 If 'P' or 'C' was entered in Item 16, enter the county of the location. This item is always required for area of operation code 'C'. This item is required for area of operation code 'P' unless the city entered in Item 11 is an independent city that has no counties (i.e., Baltimore, MD.), or the state entered in Item 13 does not require a county (i.e., Alaska, Virgin Islands).

Item 24 If 'P', 'C', 'S', or 'R' was entered in Item 16, enter the state of the location. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

Item 25 This item helps the FCC to determine if it will initiate coordination procedures with the Government of Canada. If any part of the mobile location is North of Line A, enter Y into the appropriate field. If any part of the mobile location is East of Line C (applies to stations located in Alaska only), enter Y into the appropriate field. In the event the applicant needs to submit additional information regarding coordination of a channel assignment with the Government of Canada, this should be attached as an exhibit which references Schedule I Item 25. If N is entered for both questions, the FCC will not initiate coordination procedures with the Government of Canada and your area of operation will be excluded from these border areas. Refer to FCC 601 Main Form Instructions, Appendix I, for a list of counties, by state, having areas North of Line A.

Item 26 If the response to Item 16 was 'O', enter a description of the area of operation. P.O. Box numbers or geographic coordinates are not acceptable for Item 26. The use of narrative should only be used if the area of operation cannot be described by using one of the other codes. Area of operation provided as narrative may delay processing of the application.

Instructions for Schedule I Supplement 2 - Frequency Data

If the application purpose indicated on the 601 Main Form is New, file as many copies of Supplement 2 as necessary to describe all transmitters and frequencies associated with each transmission path. Transmitters and frequency data for each transmission path must be listed on a separate Supplement 2 (refer to the instructions for Supplement 3 for information about entering and assigning path numbers).

If the application purpose indicated on the 601 Main Form is Amendment, Modification, or Renewal/Modification, complete as many copies of Supplement 2 as necessary to describe all transmitter and frequency data being amended, added, modified, or deleted. Transmitters and frequency data for each transmission path must be listed on a separate Supplement 2 (refer to the instructions for Supplement 3 for information about entering and assigning path numbers). If the proposed amendment/modification does not affect any transmitter or frequency data, do not complete Supplement 2.

Note: Deletion of a path (Supplement 3) will delete the entire path, including all frequencies. Modification of a path will affect all parameters of that path.

•Transmit Site Information

This section identifies the transmit site and path for the listed transmitters and frequency data. Transmit site information is entered on Supplement 1 of Schedule I. Path data information is entered on Supplement 3 of Schedule I.

Item 1 Enter the transmit site name as entered in Item 3 of Supplement 1.

Item 2 Enter the path number, as entered in Item 2 of the corresponding Supplement 3. Refer to the instructions for Supplement 3, Item 2 for information about entering and assigning path numbers.

Paths are defined in the instructions for Supplement 3 (Path Data).

Items 3 and 4 Enter the coordinates of the transmit site, as entered in Items 5 and 6 or Items 18 and 19 of Supplement 1.

•Transmitter Information

This section must be completed only when a transmitter is to be added, modified, or deleted. If you are adding a new transmitter, complete all items in this section for each transmitter to be added. If you are modifying an existing transmitter, in addition to Items 5 and 6, complete only the items that have changed for each transmitter. If you are deleting a transmitter, only Items 5 and 6 are required. Transmitters that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section. If a transmitter is deleted, the frequency and emission data that is linked to the transmitter will automatically be deleted and will no longer be part of your authorization.

Item 5 This item indicates what action the filer wants the FCC to take in the database for the specified transmitter. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Item 6 If the transmitter has been previously licensed under this call sign by the Commission, enter its FCC-assigned transmitter number (located on the Authorization). For a new transmitter, assign a code to represent the transmitter. The assigned transmitter number should begin with T to identify it as a transmitter (e.g., T1, T2, T3, etc.). The FCC will assign a number to the new transmitter, which will appear on the Authorization.

Items 7 and 8 Enter the manufacturer and model of the transmitter, respectively.

Item 9 Automatic Transmitter Power Control (ATPC) is a feature that automatically adjusts transmitter output power based on path fading detected at the far-end receivers. Enter 'Y' or 'N' here to indicate use of ATPC.

Item 10 Enter the Effective Isotropic Radiated Power (EIRP), as dBm rounded to one decimal place, radiated off the transmitting antenna. For a periscope antenna system, this is the anticipated EIRP radiated off its reflector. If Automatic Transmitter Power Control transmitters are used, specify the maximum EIRP in Item 10. Do not enter the coordinated or nominal transmit power.

•Frequency Information

This section must be completed only when frequencies are to be added, modified, or deleted. If you are adding new frequencies, complete all items in this section for each frequency to be added. If you are modifying frequencies, in addition to Items 11, 12, and 13 complete only the items that have changed for each frequency line (see note). If you are deleting frequency data, only Items 11, 12, and 13 are required. Frequencies that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Note: In order to modify Tolerance (Item 14), Digital Modulation Rate (Item 16), and Digital Modulation Type (Item 17), complete Items 11, 12, and 13, specifying the appropriate transmitter ID and frequency, in addition to entering the new data for the modified item(s). In order to modify emission designators (Item 15), complete Items 11, 12, and 13, specifying the appropriate transmitter ID and frequency, and list all active emission designators associated with the specified transmitter and frequency. Provide all existing and all new emission designators - do not provide emission designators that are no longer to be used.

Item 11 This item indicates what action the filer wants the FCC to take in the database for the specified frequency data. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Item 12 Enter the appropriate transmitter number, as entered in Item 6, so that frequencies in this section are associated with the correct transmitter in the Transmitter Information Section.

Item 13 Enter one frequency or one frequency band per line (e.g., 952.00625 or 1990-2210, as listed in the Rules). To request more than 12 frequencies or frequency bands, file multiple copies of Supplement 2.

Item 14 Enter the tolerance or frequency stability (in percent) of the transmitter under the conditions in which it will be operated. Normally, this is the same as the type accepted/notification value.

Item 15 Enter the full emission designator of the transmitter, composed of its necessary bandwidth and emission type.

Item 16 For digital systems, enter the digital modulation rate.

Item 17 For digital systems, enter the digital modulation type.

Instructions for Schedule I Supplement 3 - Path Data

This Supplement must be completed only when a transmission path is to be added, modified, or deleted. For purposes of filing this application, a 'path' is defined as the antennas, the location of the antennas, the orientation, and the polarization for the transmitter and receiver and any associated passive repeaters. A Supplement 3 must be completed for each transmission path added, modified, or deleted.

If you are adding a new transmission path, complete a Supplement 3 for each transmission path to be added. If you are modifying a transmission path, in addition to Items 1 through 5, complete only the items that have changed for each transmission path. If you are deleting a transmission path, only Items 1 through 5 are required. Transmission paths that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this Supplement.

File as many copies of Supplement 2 (Frequency Data) as necessary to describe all transmitters and frequencies associated with each transmission path. Transmission paths are linked on Supplement 2 and Supplement 3 by Item 2, path number, located respectively on each supplement.

•Transmit Site

This section identifies the transmit site and path numbers of the transmission paths. Transmit site information is entered on Supplement 1 of Schedule I. Path information is entered in the remaining sections of this Supplement 3.

Item 1 Enter the transmit site name as entered in Item 3 of Supplement 1.

Item 2 Enter the path number. If the path has been previously licensed under this call sign by the Commission, enter its FCC-assigned path number (located on the Authorization). If you are adding a new path to the transmit site as part of this filing, assign a code to represent the path. Number each new path consecutively, beginning each assigned path number with P to identify it as a path (e.g., P1, P2, P3, etc.). The FCC will assign the path a new path number, which will appear on the Authorization.

Note: Do we want to address non-resequencing of paths here?

Items 3 and 4 Enter the coordinates of the transmit site, as entered in Items 5 and 6 or Items 18 and 19 of Supplement 1.

► **Action Requested**

Item 5 This item indicates what action the filer wants the FCC to take in the database for the path specified in Items 1 through 4. Enter only one action per copy of Supplement 3. Enter 'A' to Add a New Path, 'M' to Modify an Existing Path, or 'D' to Delete an Existing Path.

If 'A' is entered, complete all remaining items on this supplement (Items 6 through 36). Also complete as many copies of Supplement 2 (Frequency Data) as necessary to describe all transmitters and frequencies associated with the new path. If 'M' is entered, complete Items 1 through 5 and only those Items of 6 through 36 that are being modified (enter new data only). If the modification also affects transmitters or frequencies, also complete as many copies of Supplement 2 as necessary to describe the transmitter or frequency modifications (enter new data only). Modification of a path will affect all parameters of that path. If 'D' is entered, only complete Items 1 through 5. Deletion of a path will delete the entire path, including all frequencies.

Note: To add one path and modify another, complete two Supplement 3 forms.

► **Transmit Antenna**

Items 6 and 7 Enter the name of the manufacturer and model number of the transmit antenna.

Item 8 Enter the height above ground to the center of the final radiating element. Enter this item in meters, rounded to the nearest tenth. For a parabolic dish antenna, this is the height to the center of the dish. For a periscope antenna system, this is the height to the center of the reflector. In all cases, the height should not exceed the overall height of the structure.

Item 9 Enter the beamwidth (degrees, rounded to one decimal place) of the transmitting antenna. That is, enter the angular distance between the half power points of the antenna's major lobe in the horizontal plane. For omnidirectional antennas, enter 360.

Item 10 Enter the gain (dBi, rounded to one decimal place), over an isotropic radiator.

Items 11-13 If a diversity antenna is used, complete Items 11 through 13 with the antenna height, beamwidth, and gain for the diversity antenna. See instructions for previous Items 8 through 10.

Item 14 For fixed stations only, enter the elevation height (rounded to the nearest degree), that angle measured in degrees from the horizontal up to the center line of radiation of the antenna. If the antenna tilts down (depression angle), indicate with a minus sign.

Item 15 Indicate polarization with the following codes:

V – Vertical
H – Horizontal
RHC – Right-hand circular
LHC – Left-hand circular
H/V – Variable

For linear polarization other than horizontal or vertical, the polarization should be stated in degrees measured from the vertical, with angles between 0 and +90 degrees denoting the outgoing electric field vector displacement in the clockwise direction, and angles between 0 and -90 degrees denoting the outgoing electric field vector displacement in the counterclockwise direction. For a periscope antenna system, enter the expected polarization of the signal radiated off the reflector.

Item 16 Enter the azimuth, clockwise from True North (degrees, rounded to one decimal place), from the station to the receive site or to the first passive repeater, if any, on this transmission path.

For omnidirectional antennas, enter 360. For a directional antenna without a fixed azimuth – as with temporary, mobile, Multiple Address remote, or Digital Electronic Message stations – enter 999.

Item 17 Enter the height and width for a periscope reflector, if used. Enter this item in meters, rounded to the nearest tenth.

Item 18 Enter the separation distance between the transmit antenna and the periscope reflector, if used. Enter this item in meters, rounded to the nearest tenth.

Item 19 If this path includes a passive repeater, enter 'Y'. Supplement 4 requests information about passive repeaters. If none, enter 'N'.

Item 20 If the final receiver is located outside of the United States, enter the name of the country and attach an exhibit explaining the circumstances.

Item 21 If the application proposes installation or reorientation of a transmitting antenna to operate with a frequency in the 5925-6425 MHz band and aimed within 2 degrees of the geostationary satellite orbit, enter 'Y' and submit as an exhibit a justification for waiver. Otherwise, enter 'N'.

• Final Receiver

Item 22 Enter the receiver station name. If a new station is proposed, give it a name that relates to its location. For example, the name of a city, statistical area, town, or prominent geographical feature may be used. If necessary, abbreviate the name, without punctuation (e.g., Bald Mtn).

Item 23 Enter the Call Sign of the station at the far end of the transmission path. This is the station that will receive the transmissions of this path on the frequencies entered in Item 13 of Supplement 2. For a receive-only station or a new station, leave this item blank.

Items 24 and 25 Enter the geographic coordinates of the receive site, referenced to the North American Datum of 1983 (NAD83). This information can be determined using a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington D.C. 20242 or from its office in Denver, Colorado 80225.

Note: If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the Internet at www.ngs.noaa.gov.

Enter the latitude using the format *DD-MM-SS.S*, where the degrees (*DD*) term can have a value in the range of 0 to 90, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

Item 26 Enter the ground elevation above mean sea level of the receive site. Enter this item in meters, rounded to the nearest tenth.

Items 27 and 28 Enter the name of the manufacturer and model number of the receiving antenna.

Item 29 Enter the height above ground to the center of the receiving antenna. Enter this item in meters, rounded to the nearest tenth. For a parabolic dish antenna, this is the height to the center of the dish. For a periscope antenna system, this is the height to the center of its reflector.

Item 30 Enter the beamwidth (degrees, rounded to one decimal place) of the receiving antenna. That is, enter the angular distance between the half power points of the antenna's major lobe in the horizontal plane. For omnidirectional antennas, enter 360.

Item 31 Enter the gain (dBi, rounded to one decimal place), over an isotropic radiator, of the receiving antenna.

Item 32 Enter the height above ground to the center of the diversity receiving antenna. Enter this item in meters, rounded to the nearest tenth. For a parabolic dish antenna, this is the height to the center of the dish. For a periscope antenna system, this is the height to the center of its reflector.

Item 33 Enter the beamwidth (degrees, rounded to one decimal place) of the diversity receiving antenna. That is, enter the angular distance between the half power points of the antenna's major lobe in the horizontal plane. For omnidirectional antennas, enter 360.

Item 34 Enter the gain (dBi, rounded to one decimal place), over an isotropic radiator, of the diversity receiving antenna.

Item 35 Enter the height and width for a periscope reflector, if used. Enter this item in meters, rounded to the nearest tenth.

Item 36 Enter the separation distance between the receive antenna and the periscope reflector, if used. Enter this item in meters, rounded to the nearest tenth.

Instructions for Schedule I Supplement 4 - Passive Repeaters (PR)

This Supplement must be completed only when a passive repeater is to be added, modified, or deleted. Each transmission path may have one or more passive repeaters. Each Supplement 4 describes one passive repeater. If you have more than one passive repeater, submit an additional Supplement 4 for each. If you are adding a new passive repeater, complete a Supplement 4 for each passive repeater to be added. If you are modifying an existing passive repeater, in addition to Items 1 through 7 and Item 19, complete only the items that have changed for each passive repeater. If you are deleting a passive repeater, only Items 1 through 7 are required. Passive repeaters that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this Supplement.

►Transmit Site

This section identifies the transmit site and path numbers on which the passive repeater is located. Transmit site information is entered on Supplement 1 of Schedule I. Path information is entered on Supplement 3 of Schedule I.

Item 1 Enter the transmit site name as entered in Item 3 of Supplement 1.

Item 2 Enter the path number on which the passive repeater is located, as entered on Supplement 3 Item 2.

Items 3 and 4 Enter the coordinates of the transmit site, as entered in Items 5 and 6 or Items 18 and 19 of Supplement 1.

►Action Requested

Item 5 This item indicates what action the filer wants the FCC to take in the database for the specified frequency information. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Enter only one action per copy of Supplement 4. To add one passive repeater and modify another, complete two Supplement 4 forms. At least one Supplement 3, Path Data, must be filed if you add or modify a PR. Deletion of a path (Supplement 3) will delete the entire path, including all PRs on that path.

►Passive Repeater Site

Item 6 If the passive repeater has been previously licensed under this call sign by the FCC, enter its FCC-assigned passive repeater number (located on the Authorization).

Item 7 For a new passive repeater, or to reassign the sequence number of an existing passive repeater, enter the new passive repeater number. The passive repeater number is used to identify the sequence of passive repeaters on a specific path. Thus, the passive repeater number is the same as the sequence number. It is not the segment number. PR#1 would receive the signal from the transmitter and PR#2 would receive the signal from PR#1, and so forth.

Note: If a passive repeater sequence is reassigned, a Supplement 4 must be completed and attached for every passive repeater on the path that is being assigned a new passive repeater sequence number.

Item 8 Enter the passive repeater station name. If a new station is proposed, give it a name that relates to its location. For example, the name of a city, statistical area, town, or prominent geographical feature may be used. If necessary, abbreviate the name, without punctuation (e.g., Bald Mtn).

Items 9 and 10 Enter the geographic coordinates of the passive repeater, referenced to the North American Datum of 1983 (NAD83). This information can be determined using a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington D.C. 20242 or from its office in Denver, Colorado 80225.

Note: If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the Internet at www.ngs.noaa.gov.

Enter the latitude using the format DD-MM-SS.S, where the degrees (DD) term can have a value in the range of 0 to 90, minutes (MM) can range from 0 to 59, and seconds (SS.S) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

Items 11 and 12 Enter the name of the manufacturer and model number of the passive repeater.

Item 13 Enter the height above ground to the center of the reflector or back-to-back dishes. Enter this item in meters, rounded to the nearest tenth.

Items 14 and 15 For back-to-back dishes, enter the gain, over an isotropic radiator (dBi, rounded to one decimal place) of the transmitting (TX) and receiving (Rx) antennas.

Item 16 Enter the height and width for a periscope reflector, if used. Enter this item in meters, rounded to the nearest tenth.

Item 17 Indicate polarization with the following codes:

V - Vertical
H - Horizontal
RHC - Right-hand circular
LHC - Left-hand circular
H/V - Variable

For linear polarization other than horizontal or vertical, the polarization should be stated in degrees measured from the vertical, with angles between 0 and +90 degrees denoting the outgoing electric field vector displacement in the clockwise direction, and angles between 0 and -90 degrees denoting the outgoing electric field vector displacement in the counterclockwise direction. For a periscope antenna system, enter the expected polarization of the signal radiated off the reflector.

Item 18 Enter the azimuth, clockwise from True North (degrees, rounded to one decimal place), from this PR to the receive site or to the next PR, if any, on this transmission path.

•Environmental Data Question

Item 19 This item is required for compliance with the National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4335. See also Part 1, Subpart I of the FCC rules (47 CFR 1.1301 - 1.1319). This item must be answered, either 'Y' or 'N'.

Enter Y if an FCC grant of the proposed facility may have a significant environmental effect, as defined in Section 1.1307 of the FCC rules and provide the required environmental assessment. Examples of facilities that may have a significant effect on the environment include:

An antenna structure located in a residential area (as defined by applicable zoning laws) that will utilize high intensity aviation obstruction lighting

A facility located in an officially designated wilderness area, wildlife preserve, or floodplain

A facility that affects a site significant in American history

A facility whose construction involves extensive changes in surface features

Facilities, operations, or transmitters that would cause human exposure to levels of radio frequency radiation in excess of the limits as detailed in §§ 1.1310 and 2.109 of the Commission's Rules.

•Passive Repeater Antenna Structure Information

Item 20 If antenna structure registration is required and the owner of the structure has registered the structure with the FCC, enter the seven-digit FCC Antenna Structure Registration Number (shown on the structure's registration, FCC Form 854R). If the owner of the structure has filed FCC Form 854 with the Commission to register the structure but has not yet received a registration number, enter the month and day that the application was submitted. Otherwise, enter 'N/A' (FAA notification is not required).

Note: Effective 7/1/96 the Commission requires owners to register certain structures. For more information, see our web site at <http://www.fcc.gov/wtb/antenna> or call the National Call Center at 888-225-5322.

Item 21 Respond to this item only if you indicated 'N/A' in Item 20. Enter the elevation above mean sea level (AMSL) off the ground at the antenna location. Enter this item in meters, rounded to the nearest tenth. This information can be determined using a GPS receiver, 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, D.C. 20242 or from its office in Denver, Colorado 80225. Refer to letter 'a' in the Antenna Structure Samples on Form FCC 601 Schedule I, Supplement 4.

Item 22 Respond to this item only if you indicated 'N/A' in Item 20. Enter the height above ground to the highest point of the **supporting structure only**. Enter this item in meters, rounded to the nearest tenth. For example, if the antenna structure consists of a building/tower combination, include any elevator shaft, flag pole, or penthouse in the overall support structure height, but not the antenna, tower, pole, or mast. If the antenna structure is a tower only, include the height of the tower but not the antenna. Refer to item 'b' in the Antenna Structure Samples on Form FCC 601 Schedule I, Supplement 4.

Item 23 Respond to this item only if you indicated 'N/A' in Item 20. Enter the overall height above ground of the entire antenna structure to the highest point, including any appurtenances. Enter this item in meters, rounded to the nearest tenth. You must include antennas, dishes, obstruction lighting, etc. Refer to item 'c' in the Antenna Structure Samples on Form FCC 601 Schedule I, Supplement 4.

Item 24 Respond to this item only if you indicated 'N/A' in Item 20. Enter the code for the type of structure on which the antenna is or will be mounted from the following valid structure types:

<u>Code</u>	<u>Definition</u>
B	Building with a side mounted antenna
BANT	Building with Antenna on Top
BMAST	Building with Mast/Antenna on Top
BPIPE	Building with Pipe/Antenna on Top
BPOLE	Building with Pole/Antenna on Top
BRIDG	Bridge
BTWR	Building with Tower/Antenna on Top
MAST	Self-Support Structure
NNTANN*	Antenna Tower Array
NTOWER**	Multiple Structures
PIPE	Any Type of Pipe
POLE	Any Type of Pole. Pole used only to mount an antenna.
RIG	Oil or Other Type of Rig
SILO	Any Type of Silo
STACK	Smoke Stack
TANK	Any Type of Tank, Water, Gas, etc.
TOWER	A Free Standing Guyed Structure Used for Communications Purposes
TREE	When Used as a Support for an Antenna
UPOLE	Utility Pole/Tower Used to Provide Service (Electric, Telephone, etc.)

* Valid Tower Arrays. Code definition: The first NN indicates the number of towers in an array. The second NN is optional and indicates the position of that tower in the array (Ex.: 3TA2 would identify the second tower in a three tower array).

** Valid Multiple Structures. Code Definition: The N indicates the number of towers in a multiple structure (Ex.: 2TOWER, 3TANK, 4TREE, 6BANT, 7BMAST).

Technical Data Schedule for the
Fixed Microwave and Broadcast Auxiliary Services (Parts 101 and 74)

Administrative Information

1) Is this application being filed as part of a system: () Yes/No	
2) If the answer to Item 1 is 'Yes', enter the system identification number (required if the system identification number has already been assigned by the FCC): _____	
3) Type of Operation (refer to instructions):	4) For MAS Type of Operations Only, Type of MAS Operation (Enter all that apply): <input type="checkbox"/> Two-way master-remote <input type="checkbox"/> One-way Inbound <input type="checkbox"/> One-way Outbound <input type="checkbox"/> Mobile meter reader <input type="checkbox"/> Subfrequency operation <input type="checkbox"/> Multiple master operation

Control Point (Other than at the transmitter)

5) Action A/M	6) Location Street Address, City or Town, County, State	7) Telephone Number

Broadcast Auxiliary Only

8) If there is an associated Parent Station, provide:	8a) Call Sign of Parent Station:	8b) Class of Parent Station:	8c) City and State of Parent Station Principal Community:
9) If there is no associated parent-station, Applicant certifies that it is a Broadcast Network Entity			9a) State of Primary Operation:

Frequency Coordinator Information (if not self-coordinated)

10) Frequency Coordination Number	11) Name of Frequency Coordinator	12) Voice Telephone Number

Transmit Site Data

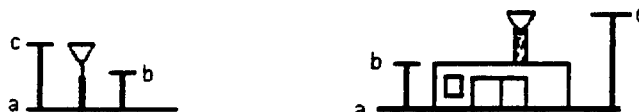
1) Purpose: ()	<u>A</u> dd a New Transmit Site (for New Licenses Only)	<u>M</u> odify an Existing Site (for Existing Licenses Only)
2) Station Class:		
3) Site Name:		
4) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect as defined by Section 1.1307 of 47 CAR?		() <u>Y</u> es <u>N</u> o
If 'Yes', submit an environmental assessment as required by 47 CAR, Sections 1.1308 and 1.1311.		

Transmit Location (Fixed Point)

5) Latitude (DD-MM-SS.S):		NAD 83 () <u>N</u> or <u>S</u>		6) Longitude (DDD-MM-SS.S):		NAD 83 () <u>E</u> or <u>W</u>	
7) Street Address, Name of Landing Area, or Other Location Description:							
8) City:			9) County:			10) State:	
11) FCC Antenna Structure Registration # or Month/Day Applied for or N/A (FAA Notification not Required)				12) Elevation of Site AMSL (meters) ('a' in Tower Sample Figure):			
13) Overall Ht AGL without appurtenances (meters) ('b' in Tower Sample Figure):			14) Overall Ht AGL with appurtenances (meters) ('c' in Tower Sample Figure):			15) Support Structure type:	

Transmit Location (Area or Mobile)

16) Area of Operation Code:		17) Temporary Fixed or Mobile Radius (km):	
18) Latitude (DD-MM-SS.S): NAD 83 () <u>N</u> or <u>S</u>		19) Longitude (DDD-MM-SS.S): NAD 83 () <u>E</u> or <u>W</u>	
20) Maximum Latitude (DD-MM-SS.S): Use for rectangle only NAD 83 () <u>N</u> or <u>S</u>		21) Maximum Longitude (DDD-MM-SS.S): Use for rectangle only NAD 83 () <u>E</u> or <u>W</u>	
22) City:	23) County:		24) State:
25) Is any part of your operation North of Line A? () <u>Yes</u> <u>No</u> Is any part of your operation East of Line C? () <u>Yes</u> <u>No</u>			
26) Description: (Only for Area of Operation Code 'O')			



Supplement 2

1) Transmit Site Name:	2) Path Number:
3) Latitude (DD-MM-SS.S):	4) Longitude (DD-MM-SS.S):

5) Action A/M/D	6) TX ID	7) Transmitter Make	8) Transmitter Model	9) Automatic Transmitter Power Control	10) EIRP (dBm)
				() <u>Y</u> es <u>N</u> o	
				() <u>Y</u> es <u>N</u> o	
				() <u>Y</u> es <u>N</u> o	
				() <u>Y</u> es <u>N</u> o	
				() <u>Y</u> es <u>N</u> o	

[illegible]

Path Data

1) Transmit site name:	2) Path number:
3) Latitude (DD-MM-SS.S):	4) Longitude (DDD-MM-SS.S):

5)	<u>A</u> dd New Path	<u>D</u> elete Existing Path	<u>M</u> odify Existing Path
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6) Antenna manufacturer:		7) Antenna model number:	
8) Height to center of antenna AGL (meters):	9) Beamwidth (degrees):	10) Antenna gain (dBi):	
11) Diversity antenna height AGL (meters):	12) Diversity beamwidth (degrees):	13) Diversity antenna gain (dBi):	
14) Elevation (tilt) angle (degrees):	15) Polarization:	16) Azimuth to RX site or passive repeater (degrees):	
17) Periscope reflector dimensions (meters): Height: Width:		18) Periscope reflector separation (meters):	
19) Does path include passive repeater? () <u>Yes</u> <u>No</u>			
20) If the final receiver is located outside of the United States, enter the country in the space provided and attach exhibit explaining circumstances.			
21) Does this filing pose potential interference to Geostationary Satellite Operation? () <u>Yes</u> <u>No</u> "If 'Yes', attach waiver request explaining circumstances.			

22) Receiver site name:		23) Call Sign or File Number:	
24) Latitude (DD-MM-SS.S): NAD 83 () <u>N</u> or <u>S</u>	25) Longitude (DDD-MM-SS.S): NAD 83 () <u>E</u> or <u>W</u>	26) Ground elevation (meters):	
27) Receiver antenna manufacturer:		28) Receiver antenna model number:	
29) Height to center of Rx antenna AGL (meters):	30) Rx Antenna beamwidth (degrees)	31) Rx antenna gain (dBi)	
32) Diversity Rx antenna height AGL (meters):	33) Diversity Rx antenna beamwidth (degrees)	34) Diversity Rx antenna gain (dBi):	
35) Rx periscope reflector dimensions (meters): Height: Width:		36) Rx periscope reflector separation (meters):	

FCC Form 601
Schedule I
Supplement 4

Passive Repeaters (PR)

Transmit Site

1) Transmit site name:	2) Path number:
3) Latitude (DD-MM-SS.S):	4) Longitude (DDD-MM-SS.S):

Action Requested ()

5) <u>Add New Passive Repeater</u>	<u>Delete Existing Passive Repeater</u>	<u>Modify Existing Passive Repeater</u>
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6) Existing Passive Repeater Number: ()	7) New Passive Repeater Number: ()
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8) PR Site Name:

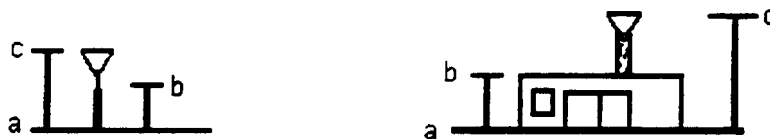
9) Latitude (DD-MM-SS.S):	NAD 83 () <u>N</u> or <u>S</u>	10) Longitude (DDD-MM-SS.S):	NAD 83 () <u>E</u> or <u>W</u>
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11) Passive repeater antenna manufacturer:	12) Passive repeater antenna model number:
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13) Height to center of passive repeater antenna AGL (meters):	14) Back-to-back TX dish gain (dBi):	15) Back-to-back Rx dish gain (dBi):
16) Reflector dimensions (meters): Height: Width:	17) Transmit polarization:	18) Azimuth to RX site or next passive repeater:

19) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect as defined by Section 1.1307 of 47 CAR? If 'Yes', submit an environmental assessment as required by 47 CAR, Sections 1.1308 and 1.1311.	() <u>Yes</u> <u>No</u>
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Passive Repeater Tower Information



Antenna Structure Sample Figures

20) FCC Antenna Structure Registration # or Month/Date Applied for or N/A (FAA Notification Not Required)	21) Support Structure Type:	22) Elevation of Site AMSL (meters) ('a' in figures):	23) Overall Ht AGL without appurtenances (meters) ('b' in figures):	24) Overall Ht AGL with appurtenances (meters) ('c' in figures):

Information and Instructions

**Technical Data Schedule for the
Paging, Rural, Air-ground (General Aviation), and
Offshore Radiotelephone Services (Part 22)**

FCC Form 601, Schedule J, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC Form 601. FCC Form 601, Schedule J, is used to apply, or to amend a pending application, for an authorization to operate a radio station in the Paging Services. The 601 Main Form must be filed in conjunction with this schedule.

If you are applying for authorization of fixed transmit station locations and antenna structures, you must file technical information for each location and/or structure using Schedule D, Schedule for Fixed Station Locations and Antenna Structures. It is recommended that you complete Schedule D (if required) prior to completing Schedule J.

If you are applying for authorization of mobile transmit locations, temporary fixed station locations, or 6.1 meter control stations, you must file technical information for each location or station using Schedule E, Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Stations. It is recommended that you complete Schedule E (if required) prior to completing this schedule. When filed in conjunction with Schedule J, Schedule E only applies to Rural Radio (CR) and Offshore (CO) radio services.

If you are applying for authorization of a mobile station operating around a fixed location, you must file both Schedule D and Schedule E. Technical information for each schedule must be collected separately. The fixed location value entered in Item 2 on Schedule D must also be entered in Item 3 on Schedule E. It is recommended that you complete Schedules D and E (if required) prior to completing Schedule J.

**Schedule J
Instructions**

•Type of Operation Code

Item 1 This item requests a two-letter code indicating the type of operation proposed. The codes are as follows:

One-way paging	OP (for use only with radio service code CD)
Response paging	RP (for use only with radio service code CD)
One-way and two-way communication	OT (for use with all radio service codes)
Two-way mobile data	TD (for use with all radio service codes)
Two-way mobile telephone, data and images	TB (for use with all radio service codes)
Two-way mobile communications	TC (for use with all radio service codes)
Dispatch	DP (for use only with radio service code CD)
Rural radiotelephone, conventional	RR (for use only with radio service code CR)
Rural radiotelephone, BETRS	RB (for use only with radio service code CR)
Air-ground radiotelephone	AR (for use only with radio service code CG)
Point-to-point	PP (for use only with radio service code CD)
Point-to-multipoint	PM (for use only with radio service code CD)
Other	NS (for use with all radio service codes)

•Control Points

This section must be completed only when a control point is to be added, modified, or deleted. If you are adding a new control point, complete all items in this section for each control point to be added. If you are modifying an existing control point, in addition to Items 2 and 3, complete only the items that have changed for the control point. If you are deleting a control point, only Items 2 and 3 are required. Control points that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Item 2 This item indicates what action the filer wants the FCC to take in the database for the specified control point. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Item 3 If the control point has been previously licensed under this call sign to the applicant by the FCC, enter its FCC-assigned control point number (located on the Authorization). For a new control point, assign a code to represent the control point. The assigned control point number should begin with C to identify it as a control point (e.g., C1, C2, C3, etc.). The FCC will assign a number to the new control point, which will appear on the Authorization.

Item 4 Enter the street address, city or town, county, and state of the control point. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

Item 5 Enter the telephone number where a person responsible for operation of the station or systems could be reached.

•Antenna Information

This section must be completed only when antenna information is to be added, modified, or deleted. If you are adding a new antenna, complete all items for each antenna to be added. If you are modifying an existing antenna, in addition to Items 6, 7, and 8, complete only the items that have changed for the antenna. If you are deleting an antenna, only Items 6, 7, and 8 are required. Antennas that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Item 6 This item indicates what action the filer wants the FCC to take in the database for the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Item 7 For each antenna structure, enter its corresponding location number, as entered on Schedule D Item 2 or Schedule E Item 2. If the location has been previously licensed under this call sign by the FCC, enter the FCC-assigned location number (located on the Authorization). Otherwise, enter the location code assigned on Schedule D or Schedule E to represent the location. Refer to the instructions for Schedules D and E for more information on assigning location numbers.

Item 8 If the antenna has been previously licensed under this call sign by the FCC, enter the antenna's FCC-assigned number (located on the Authorization). Otherwise, enter a code to represent each antenna. The antenna number assigned should begin with A to identify it as an antenna. For example, enter A1 for the first antenna, A2 for the next antenna, and so on. A single location can have multiple antennas. Antenna numbers need only be unique within each location. The FCC will assign a number to the new antenna, which will appear on the Authorization.

Note: Location number (Item 7) and antenna number (Item 8) are used to associate information in the Antenna Information Section with information in the following sections: Frequency Information, Radial Data for Antennas, and Points of Communications for Transmitters. To do this, enter the necessary technical information into the Antenna Information Section using the appropriate location number and antenna number. Then, enter the necessary technical information in each of the related sections for that antenna, using the same location number/antenna number pair. Each antenna specified in the Frequency Information, Radial Data for Antennas, and Points of Communication for Transmitters Sections must have corresponding data in the Antenna Information Section.

Item 9 Enter the actual height to the tip of the antenna. Enter this item in meters, rounded to the nearest tenth.

Item 10 Enter the average radiation center height above average terrain of the eight cardinal radials. Enter this item in meters, rounded to the nearest tenth.

Item 11 This item provides the beamwidth of the main major lobe of a directional antenna used with a fixed station. Complete this item for fixed stations only.

Item 12 Enter the ratio (decibels) of the power required at the input of loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power-flux density at the same distance. This information should be available from the specification sheet included with the antenna at the time of purchase.

Item 13 Enter the angle in the horizontal plane of the transmitting antenna main lobe measured clockwise with respect to true north in degrees, or enter OMNI to indicate that the transmitting antenna is omni-directional.

•Frequency Information

This section must be completed only when frequencies are to be added, modified, or deleted. If you are adding a new frequency, complete all items for each frequency to be added. If you are modifying an existing frequency, in addition to Items 14 through 18, complete only the items that have changed for the frequency. If you are deleting a frequency, only Items 14 through 18 are required.

Frequencies that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Enter frequency information for each antenna specified in the Antenna Information Section. For multiple frequency lines, repeat the location number/antenna number combination for each frequency. For example:

<u>Location</u>	<u>Antenna</u>	<u>Frequency (MHz)</u>
F1	A1	XXXXXXXX.XXXXXXXX
F1	A1	YYYYYYYY.YYYYYYYY
F1	A1	ZZZZZZZZ.ZZZZZZZZ
F1	A2	AAAAAAAA.AAAAAAAAA
F1	A2	BBBBBBBBB.BBBBBBBBB
F2	A1	CCCCCCCC.CCCCCCCC
F2	A1	DDDDDDDD.DDDDDDDD

Item 14 This item indicates what action the filer wants the FCC to take in the database for the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Item 15 For each antenna structure, enter its corresponding location number, as entered in Item 7 of the Antenna Information Section of this Schedule..

Item 16 For each antenna, enter its corresponding antenna number, as entered in Item 8 of the Antenna Information Section of this Schedule.

Note: Each location number (Item 15) and antenna number (Item 16) pair specified in the Frequency Information Section must have corresponding data in the Antenna Information Section.

Item 17 Enter, in megahertz (MHz), the center frequencies of the channels on which the transmitters operate or are proposed to operate. The pertinent channel(s) must be specified for each frequency.

Item 18 Enter the appropriate class of station code from the following table. Definitions for most of these items are listed in the Commission's rules.

Air-ground Signaling	FBSI
Auxiliary Test	FXTS
Base	FBBS
Central Office	FXCO
Control	FXCT
Dispatch	FXDI
Fixed Relay	FXRX
Fixed Subscriber	FXSB
Ground	FBGS
Inter-Office	FXIO
Mobile Subscriber	MLSB
Repeater	FXRP
Standby	FBST
Temporary Fixed	FX5

Item 19 This item reports the maximum effective radiated power (ERP) in any direction on the specified channel. The answer must be stated in watts.

Item 20 Enter the actual transmitter output power in watts.

Item 21 Complete this item only if the filing requests authority to use an emission type that is not already authorized in the FCC rules for use by all stations in the pertinent radio service.

► Radial Data for Antennas

This section must be completed only when radial data for antennas is to be added, modified, or deleted. If you are adding new radial data, complete all items for each radial data block to be added. If you are modifying existing radial data, complete all items for the radial data block to be modified. The new radial data information will overlay the existing radial data information in the FCC's database. If you are deleting radial data, only Items 22 through 25 are required. Radial data that is currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Item 22 Indicate what action the filer wants the FCC to take in the database for the radial data of the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Items 23-25 Enter the location number, antenna number, and channel center frequency, as specified in the Antenna Information and Frequency Information Sections.

Note: Each location number, antenna number, and channel center frequency specified in the Radial Data for Antennas Section must have corresponding data in the Antenna Information and Frequency Information Sections.

Item 26 Enter the height of the antenna center of radiation above the average terrain elevation (RCHAAT) along each of the eight cardinal radials. Enter this item in meters, rounded to the nearest tenth.

Item 27 Enter the effective radiated power (ERP) for each of the eight cardinal radials.

► Points of Communication for Transmitters

These items describe fixed points of communication for (1) stations in the Rural Radiotelephone Service serving individually licensed subscribers and (2) point-to-multipoint transmitters operating on channels that are assigned only to stations that communicate with four or more points. These items should not be completed by filers for any other purpose. Only Rural Radiotelephone Services (radio service code CR) operating under class of station code FXCT (fixed control station) may complete this section.

This section must be completed only when points of communication are to be added, modified, or deleted. If you are adding new points of communication, complete all items for each point of communication to be added. If you are modifying existing points of communication, complete all items for the point of communication to be modified. The modified point of communication will overlay the existing point of communication in the FCC's database. If you are deleting points of communication, only Items 28 through 31 are required. Points of communication that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Item 28 This item indicates what action the filer wants the FCC to take in the database for the specified point of communication. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Item 29 Enter the corresponding location number of the point of communication, as entered in Item 15 of this schedule.

Item 30 Enter the corresponding antenna number of the point of communication, as entered in Item 16 of this schedule.

Item 31 Enter the corresponding channel center frequency of the point of communication, as entered in Item 17 of this schedule.

Item 32 Enter the name of the city or town of the point of communication.

Item 33 Enter the state of the point of communication. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

Item 34 Enter in megahertz (MHz), the center frequencies of the point of communication.

Items 35 and 36 Enter the geographic coordinates of the location, referenced to the North American Datum of 1983 (NAD83). This information can be determined using a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington D.C. 20242 or from its office in Denver, Colorado 80225.

Note: If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40), you must convert to NAD83. Conversion routines are available through the Internet at www.ngs.noaa.gov.

Enter the latitude using the format *DD-MM-SS.S*, where the degrees (*DD*) term can have a value in the range of 0 to 90, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either N for North or S for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either E for East or W for West.

Item 37 Enter the subscriber call sign of the point of communication.